DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.15

SOURCE INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** SIR-003228

Address: 333 Burma Road **Date Inspected:** 30-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Dao, Shangha

Quality Control Contact: Don Walton **Quality Control Present:** Yes No

N/A **Material transfer:** Yes **Sampled Items:** Yes No N/A No **Stock Transfer:** N/A N/A Yes No OK to Cut: Yes No **Rebar Test Witness:** N/A **Delayed/Cancelled:** N/A Yes No Yes No

Other: Coatings Inspection

Bridge No: 34-0006 Sub-Assemblies (OBG) and Sub-Assemblies **Component:**

Bid Item: Lot No: 77,78,79

Summary of Items Observed:

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. Kenneth W. Cason Jr. arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections is to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Sub-Assemblies (OBG)

Cross Beam 17 Entire Internal Floor, NOI Number 6394: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Cross Beam 17 Internal Ceiling for dry film thickness (DFT) compliance. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to proceeding with process to the next check point due to low DFT readings, holidays and over-spray on faying surfaces.

Galvanized Traveler Rails (8 Each), NOI Number 6395: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Galvanized Traveler Rails (8 Each) for dry film thickness (DFT) and final VT compliance. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Crash Barriers E2-SB28A-001 PP111.5 PP112, W2SB19-001 PP112.5 PP113 and Bike Path Panel BK4A-014, NOI Number 6396: In accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives recorded the results of adhesion testing on Crash Barriers E2-SB28A-001

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PP111.5 PP112, W2SB19-001 PP112.5 PP113 and Bike Path Panel BK4A-014. Crash Barrier W2SB19-001 PP112.5 PP113 recorded x1 test value @ 6.92 mPa, Bike Path Panel BK4A-014 recorded x1 test value @ 7.14 mPa. Crash Barrier E2-SB28A-001 PP111.5 PP112 x1 test failed recorded value @ 3.82 mPa. ABF Quality Assurance personnel to instruct ZPMC to re-submit test prior to final acceptance. No other discrepancies noted on successfully tested items and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Crash Barriers External Surfaces (27 Each), NOI Number 6397: In preparation for finish coat Interfine 979 Polysiloxane installation and in accordance with project specifications and SSPC-SP 1, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Crash Barriers External Surfaces (27 Each). No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Bike Path Panel BK4A-014, NOI Number 6401: In preparation for finish coat Interfine 979 Polysiloxane installation and in accordance with project specifications and SSPC-SP 1, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Bike Path Panel BK4A-014. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Maintenance Crane Bracket (18 Each), Shim Plates X3150 (2 Each) and L-Splices X3149 (4 Each), NOI Number 6402: In preparation for undercoat installation and in accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Maintenance Crane Bracket (18 Each), Shim Plates X3150 (2 Each) and L-Splices X3149 (4 Each). ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection due to additional required grinding and blasting.

Cross Beam 17 Entire Internal Floor, NOI Number 6403: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Cross Beam 17 Internal Ceiling for dry film thickness (DFT) compliance. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to proceeding with process to the next check point.

Cross Beam 17 External and Internal, NOI Number 6404: In accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives recorded the results of adhesion testing on Cross Beam 17 External and Internal. Internal recorded x2 test values @ 14.18 and 7.66 mPa, External recorded x1 test value @ 12.45 mPa. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Suspender Brackets SB110W and SB110E, NOI Number 6406: In accordance with project specifications, ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Suspender Brackets SB110W and SB110E in preparation for blasting operations. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Maintenance Crane Bracket (18 Each), Shim Plates X3150 (2 Each) and L-Splices X3149 (4 Each), NOI Number 6407: In preparation for undercoat installation and in accordance with project specifications, this inspector along

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with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Maintenance Crane Bracket (18 Each), Shim Plates X3150 (2 Each) and L-Splices X3149 (4 Each). Test results recorded x3 surface profile readings in the range of 76 to 83 µm. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Splices (46 Each), Shim Plates X3305A (40 Each) and X3305E (40 Each), NOI Number 6409: In accordance with project specifications, ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Splices (46 Each), Shim Plates X3305A (40 Each) and X3305E (40 Each) in preparation for blasting operations. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Sub-Assemblies (Tower)

Galvanized Ladder (5 Each), NOI Number T2068: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Galvanized Ladder (5 Each) for dry film thickness (DFT) and final VT compliance. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Tower Head Internal Surfaces ESD1-TL6-2 and SSD1-TL6-1, NOI Number T2069: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Tower Head Internal Surfaces ESD1-TL6-2 and SSD1-TL6-1 for dry film thickness (DFT) compliance. Recorded DFT readings were out of specification range. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection.

Tower Head Internal and External Surfaces WSD1-TL6-4, NSD1-TL6-3 and Tower Boom Supports (Re-blast) ESD1-TPSA7-4 (2 each), NOI Number T2070: In preparation for undercoat installation and in accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Tower Head Internal and External Surfaces WSD1-TL6-4, NSD1-TL6-3 and Tower Boom Supports (Re-blast) ESD1-TPSA7-4 (2 each). ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection due to weld defects and additional required grinding and blasting.

Tower Boom Supports (12 each), NOI Number T2071: In accordance with project specifications, ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Tower Boom Supports (12 each) in preparation for blasting operations. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Tower Head Internal and External Surfaces WSD1-TL6-4, NSD1-TL6-3 and Tower Boom Supports (Re-Blast) ESD1-TPSA7-4 (2 each), NOI Number T2072: In preparation for undercoat installation and in accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Tower Head Internal and External Surfaces WSD1-TL6-4, NSD1-TL6-3 and Tower Boom Supports (Re-Blast) ESD1-TPSA7-4 (2 each). Test results recorded x3 surface profile readings in the range of 76 to 80 µm and x1 soluble salts reading of 12.8 (µs/cm). No major discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

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Office

This Quality Assurance Inspector (QA) reviewed, recorded and entered data from notice of inspection requests for the purpose of tracking and compliance to contract documents.

Note: Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Cason,Kenneth	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer